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STELLAR POPULATIONS as BUILDING BLOCKS of GALAXIES

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Preface

The last IAU Symposium on Stellar Populations was held in 1995, i.e., more than ten years ago. We felt that at the time where stellar populations are providing among the strongest constraints on our current picture of how galaxies form and evolve an IAU Symposium to review the status of this field and to discuss routes that need to be followed to pursue this research was largely needed. We therefore proposed the idea to celebrate an IAU Symposium on the island of La Palma, where one of the observatories that have contributed so much to the development of this field is located, and where a new 8-10m class telescope will soon see the first light. An IAU Symposium had not been held in La Palma since the Observatorio de El Roque de Los Muchachos was built up about two decades ago.

The Symposium was sponsored by IAU Commission 28 and supported by six IAU Commissions relevant for the field (see acknowledgements below). The Symposium obtained the support of IAU Divisions VII and VIII and was approved by the IAU Executive Committee in April 2005. The Symposium was then properly announced reaching a strong oversubscription with more than 300 pre-registered participants. As a result, we were obliged to turn down a rather high proportion of the pre-registered participants due to the limited capacity of the selected Hotel. As a result about 40 people who were originally included in the waiting list were admitted in the end. Finally, approximately 180 participants from 25 countries attended the Symposium. IAU grants were awarded to 40 participants. Preference was given to young researchers from economically less-privileged countries.

We would like to express our immense gratitude to all the members of the LOC for their very active involvement in the organisation of the meeting and above all to Tanja Karthaus who did most of the work. We would like to thank the Hotel for their great help and flexibility in all sort of aspects related to the organisation of the event and for the participants requests. We also would like to thank Sonia Soria for her great help and in particular for obtaining most of photos during this event. We also express our gratitude to all the members of the SOC for their invaluable help to set up the whole scientific programme.

The conference was attended by both modelers (in stellar evolution and stellar populations) and observers working on Stellar Populations in the Milky Way, the Local Group and unresolved nearby and high redshift galaxies. We are particularly glad that researchers of resolved stellar populations and those working with integrated light, two important areas of research that have grown separately, attended the Symposium to unite their efforts in the era where new ground and space astronomical facilities are providing the means to study the same objects with these two approaches. The programme included 12 reviews to introduce each topic and 50 contributed talks. The SOC asked each reviewer to present a very balanced overview of the theme. The contributed talks were

selected by the SOC, and special care was taken to represent all the themes covered in the Symposium. We are particularly satisfied that a balance between active senior and young researchers was reached in the programme of talks. In addition, there were about 140 poster papers. Within the SOC we considered different ways for emphasizing the true relevance of these posters. We therefore decided to ask five experienced researchers to help by presenting summaries of the posters, in this way giving people an overview of the information present, so that it would be easier for the participants to select the posters that they wanted to look at in detail. Each of the five poster summary sessions was allotted 20 minutes (1 hour and 40 minutes in total) and all were scheduled during the first half of the week so that the participants had enough time to look at the posters afterwards. The SOC members would like to express our gratitude to S. Heap, J. Andersen, P. Stetson, J.E. Beckman and U. Fritze, for their enthusiasm and great effort for accomplishing such a difficult task.

We also organized two challenges, where researchers from the community participating in the conference were asked to model a number of pre-defined problems. The solutions were discussed, and by comparing them the audience could get a good idea of the differences between (I) various stellar evolution models and (II) different stellar population models. The specifications of the proposed models and fits to be calculated had been defined in the last week of June 2006 during the workshop "Fine-Tuning Stellar Population Models" held at the Lorentz Center in Leiden, The Netherlands, which was attended by about 60 participants, 40 of which also attended the IAU Symposium 241. We would like to express our personal thanks to the organizers of these challenges, A. Weiss and S. Trager, for the tremendous work involved in the definition of the challenges, for their patience and struggle with the community to get their results in due time and for their efforts in summarizing the results and conclusions. We also would like to thank all the groups who contributed to these challenges. Finally, the Symposium included two sets of three parallel discussion sessions, where in smaller groups people a number of important problems in the field were discussed:

- Abundance patterns of different elements in stars and galaxies: what are they and what can we learn from them.
- When did the first galaxies form?
- What can be done to make the Virtual Observatory useful for stellar population analysis?
- Later stellar evolution phases and their impact on population synthesis
- What is the relationship between compact ellipticals (such as M32) and more massive ellipticals
- What should we do with the future instruments on the Hubble Space Telescope (WFC3 and COS)?

We are happy with the experience of a large conference in La Palma. The weather started rough, but became very pleasant at the end of the conference. Many participants visited the observatory, during one of the two excursions, and saw the beautiful Island of La Palma. We hope that for many people this has been a remarkable visit, and that many IAU Symposia will follow here.

*Alexandre Vazdekis and Reynier Peletier, co-chairs SOC,
La Laguna, Groningen, May 5, 2007*

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